

Work Order ID 101176***101176***

Page 1

May-02-13 11:51:10 AM

Item ID: D205-634-111

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00

1

Customer:

Reference: rework - ECN13-544

Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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IIN D205-634

G

0.00

100

100

DC

Document Control

Memo

0.00

Photocopy bluefile & type labels per PPP D205-634-111
CHG 004

DART Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY ONT CANADA K6A 1K7		TC APPROVAL # 09-39 TEL: 1-613-632-5200	
P/N	D205-634-111	CHG	CHG003
DESC	Skidtube	STC	SH96-88
LOT	B81837	STC	SR00563NY
MODEL	Bell 205/210/212/214/412/UH-1	STC	
PATENTS US # 5735484, CA # 2222184 EUROPEAN NO. 7 062655		MADE IN CANADA 027292	

0.00

101

101

HandFinish

Hand Finishing

Memo

0.00

1 X D205-634-111 B81837
REMOVE THE 2 WEARPLATES
1 X D4406-041 / 1 X D4406-043
SCRAP
INSTALL NEW WEARPLATES AT REV.C
1 X D4406-041 B. 98746
1 X D4406-043 B. 98743**101176**

Work Order ID 101176***101176***

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Customer:

Reference: rework - ECN13-544

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
105 *105* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		AS 27 BS-15		1			
110 *110* Packaging Packaging	Pick Kit Memo ENSURE ORIGINAL KIT IS IN BOX	0.00 0.00				1	2	13-5-23	
120 *120* QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00							13/5/23 DAS 06 9-23

Work Order ID 101176

101176

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May-02-13 11:51:10 AM

Item ID: D205-634-111

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00 *1*

Customer:

Reference: rework - ECN13-544

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
Packaging									
Packaging	<p>Memo</p> <p>REPACKAGE PER PPP UISNG NEW B/N NEW LABELS AND PAPERWORK REQ'D @ CHG004 Identify and pack for shipping as per PPP D205-634-111 Location: <u>FG 073</u> PPP rev: _____</p>	0.00							
140		0.00							
140									
QC									
Quality Control	<p>Memo</p> <p>QC21- Final Inspection - Work Order Release</p>	0.00							

1 8 13-5-23

13/5/27

MLS 13-05-23

Picklist Print

May-02-13 11:51:10 AM

Page 1

Work Order ID: 101176
Parent Item: D205-634-111
Parent Item Name: Skidtube

Start Date: 5/02/13 Required Date: 5/02/13
Start Qty: 1.00 Required Qty: 1.00

Comments: IPP revA 11.09.26 new issue EC verified by:DD IPP REV:B 12.01.23 AS PER
ECN11-684 DD VERF:EC IPP REV:C 13.03.21 AS PER ECN13-544 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D205-634-111 Skidtube		Manufactured	No				Each	0.0000		1	8/8/13	h	
D4406-041 Fwd Wearplate Assembly		Manufactured	No				Each	6.0000			12/05/15		
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP002				6			X1		
				98746				6					
D4406-043 Aft Wearplate Assembly		Manufactured	No				Each	6.0000			13/05/15		
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP001				6			X1		
				98747				6					

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 13.03.21	Job No.: ENG4108	ADR Yes/No: Y	ADR Date: 13.03.21	ECN #: 13- 544
Product No.: D205-634		Created By: AJS	Approved By: [Signature]	
Product Name: SKID TUBE (TRAINING WEARPLATE)		Checked By: [Signature]		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	NF	
Production Manager / Coord.	Y	LL/MF	
Purchasing Coord.	N	CL	
Production Engineering Coord.	Y	DD/JLM	
Production Engineering Coord.		DL	
Customer Order Processing		RM/CA	

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
DQA / QA Coord.	Y	PS	
QC Coordinator	Y	ED	
Customer Support	Y	SW/LM	
Customer Technical Support	Y	MB/DS	
Marketing		HM	

Reason for Change: DESIGN IMPROVEMENT

Documents Affected:
D4406 & D4407 REV. C
MDL-D205-634 REV. Y

PAPERWORK UPDATE ☐ PARTS MUST COMPLY ☒ PREVIOUS PARTS SATISFACTORY ☐

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	Y	AJS		13.03.21 DS
6	Update Product Compatability Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		13.03.21 [Signature]
11	Update Product Specification Files	N			
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		13.03.21 [Signature]
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify ARC Database	N			
18	Create / Update Change Record Form / Item Card Database	Y	KJ	SEE BELOW	13.03.21 [Signature]
19	Create / Update PPP's	Y	KJ		
20	Red Decals required?	Y	KJ		
21	Update Document Control Database / Laminated Dwgs	N			
22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		13.03.21 [Signature]
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		13.03.21 [Signature]
24	Manufacturing Licensing Agreement Update	N			

Description / Action:

ROLL D205-634-111 TO CHG 004 101175 - 101176 - 101177 - 101178

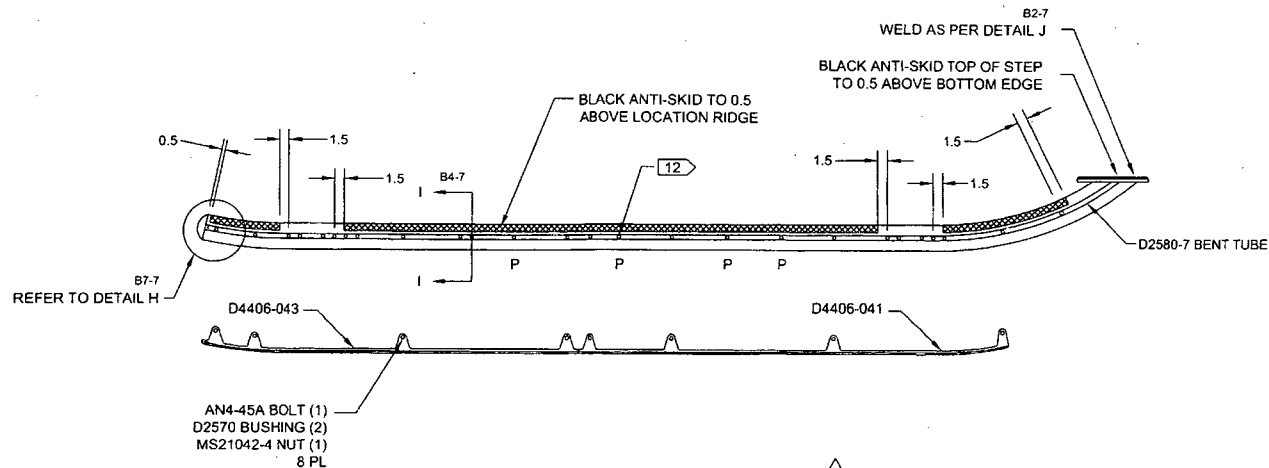
ROLL D205-634-141 TO CHG 004

ROLL D205-634-143 TO CHG 003

Scrap any D4406 or D4407 parts in stock manufactured before Rev. C 95737-738.739

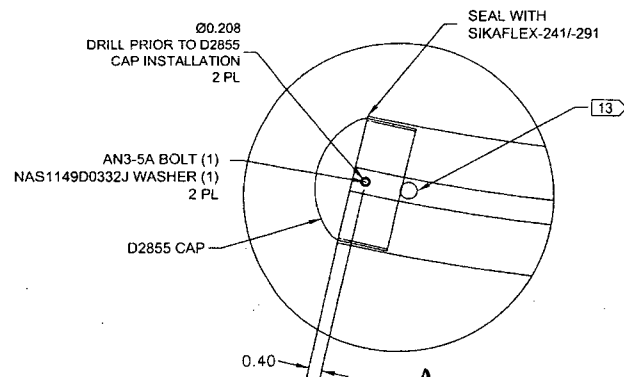
Release D4406 & D4407

ECN Verified & Complete: _____ Date: _____

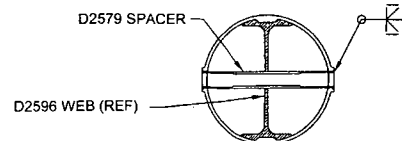


D2580-047 ASSEMBLY DETAIL E

DETAIL H C6-7
SCALE 5X

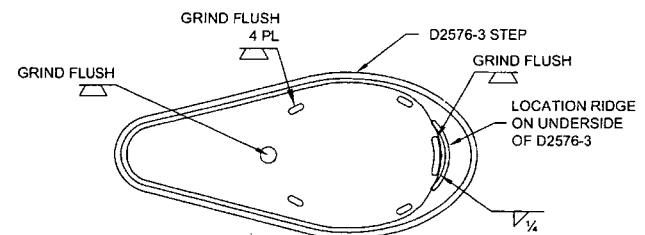


SECTION I-I D5-7
SCALE 5X



- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
 2. INSERT D2579 SPACER (25 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

DETAIL J D3-7
SCALE 5X



DEO ATTACHED
RELEASED
2011-08-29

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D2580	SHEET 6 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	205 SKIDTUBE ASSEMBLY	NTS
DATE	11.06.21	COPYRIGHT © 1996 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		